

# TURF TALK

Winter 2015



## PLAYABILITY THROUGH RESEARCH

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# Playability Through Research

The standards of golf course and sports turf playing conditions have improved immeasurably over the past 10 years, reports Syngenta Business Manager, Daniel Lightfoot.

That has primarily been down to the skills of greenkeepers and groundsmen who have embraced and incorporated the many new tools, innovative techniques and pioneering products into proactive turf management programmes. Education and skills training for the industry has taken a step change, providing the experience and sharing knowledge to utilise new developments faster and more successfully.

Key to that success has been the ability to select appropriate innovation that has been proven to perform. At Syngenta, the unrivalled science behind every product ensures they will reliably achieve the required results - to enhance turf health that improves playability.

Furthermore, Syngenta research now increasingly goes beyond the physical product performance, to provide answers

and integrated turf management solutions that will help produce the consistent playing quality demanded by today's more exacting players.

Playability Through Research seeks to identify and implement the Syngenta science that greenkeepers and turf managers can utilise to deliver consistently better surfaces, and keep satisfied players coming back, time and time again.

## Firm surfaces

The advent of Qualibra, with its unique capability to quickly move water away from the surface and yet hold moisture in the root zone, has given the potential to maintain firm playing surfaces demanded by players all year round, whilst still creating conditions optimal for plant health.

Qualibra was engineered by Syngenta formulation chemists, who investigated over 10,000 potential component chemicals to create a balanced combination of penetrant and polymer activity.

Research has shown the even soil moisture distribution in the root zone leads to greater uptake and utilisation of water and nutrients – improving the efficiency of fertiliser and irrigation, as well as enhancing turf health and colour.

Additionally, new trials demonstrated a Qualibra programme can help to visibly reduce the build-up of thatch at the soil surface, attributed to more effective microbial activity in the favourable soil conditions. Reduced thatch helps maintain optimum greens' surfaces, and reduces the risk of disease issues.



**FIRMER SURFACES**  
IMPROVED PLAYABILITY

### RESEARCH PROVEN RESULTS:

- Firm surface
- Strong rooting
- Improved uptake of nutrients
- Reduced thatch

## Fine quality restored

The innovation of Rescue herbicide that can selectively remove coarse Ryegrass from fine turf grasses has been one of the most significant steps in restoring the smoothness and consistency of traditional fescue playing surfaces.

The development and approval of Rescue has also transformed rough management, to tackle thick tussocky grass that is the cause of the most vociferous player criticism.

The discovery of Rescue included the screening of many thousands of potential herbicide active ingredients. Over 800 scientists working at the Syngenta Jealott's Hill International Research Station in Berkshire include the team of weed science specialists, working in Europe's largest dedicated weed research facility.

A huge trials programme at Syngenta's own turf research facility, at the STRI and greenkeepers' own work on courses around the country has continued to develop new techniques to utilise Rescue to enhance playability.



**FINE GRASSES**  
IMPROVED PLAYABILITY

## Consistent performance

Primo Maxx has been acclaimed by greenkeepers in the US as one of the Top 5 products invented for improved playing surface quality. It was the first genuine growth regulator designed specifically for turf with the Maxx formulation.

For playability, Primo Maxx can help to create more consistent putting surfaces that perform better right through the day. On fairways, new Red-Eye research has shown the improved plant density and leaf turgor helps improve ball lie and give golfers a cleaner shot.

Extensive Syngenta player research has highlighted that Primo Maxx can help greenkeepers successfully address many of the key criticisms of golfers – providing the consistency and visual quality they demand.

Years of trials and research has highlighted how Primo Maxx acts to enhance turf plant health and quality, including photochemical efficiency and water osmoregulation.



**FASTER GREENS**  
IMPROVED PLAYABILITY

## Preventing scar marks

Disease scars are a massive blight on playing surface quality. Even low levels of infection have physical effects on ball roll, along with the visual impact on players' perception of course quality.

Syngenta has provided a renowned range of highly effective turf fungicide solutions to prevent disease throughout the season. The company invests over \$1.4bn a year on R&D into new product development and improving performance of existing products.

With changing weather patterns, turf species and management practices, research into new actives and new techniques is required to meet increasingly difficult challenges. The scientific insight to understand disease inside out is essential to deliver more effective results.

Utilising existing active ingredients – along with investigating the potential for new options – is continuing to evolve new options for integrated solutions to help maintain improved turf quality.



**SMOOTH SURFACE**  
IMPROVED PLAYABILITY

### RESEARCH PROVEN RESULTS:

- Quicker transition to fine grass surfaces
- Effective on Ryegrass, Yorkshire Fog and Moor Grass
- Revolutionary techniques for rough management
- Successful establishment of wildflowers

### RESEARCH PROVEN RESULTS:

- Improved sward density
- Consistent speed and smoothness
- Stronger rooting and recovery
- Season-long colour and performance
- Time and cost savings

### RESEARCH PROVEN RESULTS:

- Flexibility of timing for effective results
- Tackle a broad-spectrum of diseases
- Optimise formulations for rainfastness and turf safety



Turf Science Live took to Ireland to extend the insight into the research and new technology from Syngenta and ICL (formerly Everris).

Hosted by Naas Golf Club, Co Kildared, Course Manager David Behan and his team provided an immaculately presented course and a series of trials on areas of greens, fairways and rough. Along with stations from Campey Turf Care and Toro, it gave over 150 superintendents, greenkeepers and turf managers the chance to see and discuss the results of turf science in action.



## Fairway enhancement

Ireland's climate consistently provides perfect growing conditions for grass. Whilst that has real benefits for producing great golf courses, it presents a real challenge for managing high turf growth rates, especially on fairways.



The introduction of the Ultimate Fairway Offer of Primo Maxx PGR and Sportsmaster WSF nutrition has provided an economic way to manage fairways more effectively and improve playing conditions, according to ICL Country Manager for Ireland, Colman Warde.

Demonstrating a Turf Science Live trial of a three-spray programme of the growth regulator and fertiliser combination on half of a fairway at Naas, Colman pointed out the improved playing conditions with a visibly tighter sward and appearance, compared to the untreated half.

For most clubs on the programme, fairway mowing frequency has typically been reduced by 30% to 50%, reported Colman. And, with reduced clippings, the cut is cleaner with fewer clumps - especially in wet conditions.

"The Naas trial has also demonstrated the enhanced turf health and quality on the treated area. Turf colour has been improved and there was no incidence of Red Thread patches that have affected stressed areas of untreated areas," he added.

With four years' experience of summer Primo Maxx programmes on fairways, Colman reported the improved turf health and quality was also helping to maintain condition through the winter too.

## Rough revival

Thick, tussocky rough that threatens to slow down play and spoil too many golfer's rounds can be quickly and effectively reverted to finer fescue swards, with a Rescue programme to selectively remove coarse grasses, advised ICL Technical Support Officer, Michael Fance.



**Before ... During ... After ...** a Turf Science Live demonstration of rough in the process of restoration through Rescue treatment (centre), alongside untreated areas (left) and areas treated in previous seasons that are now predominantly fescue.

"The selective herbicide route is invariably faster and more cost effective than trying to manage rough by cutting alone," he advised. "It's a practical solution to resolve the issue of thick rough that is often the most vociferous complaint of golfers, and help create a visually more attractive course."



The Ultimate Fairway Offer provides an extremely cost-effective option for a season-long programme of Primo Maxx and Sportsmaster WSF High N fertiliser on extended areas of the course, along with Turf Rewards points.



Use the GreenCast Primo Maxx Cost Calculator to find your potential savings from using Primo Maxx on fairways.

# Spore target

New advances in fungicide technology give greater flexibility to control foliar diseases under more difficult conditions, advised Syngenta Technical Manager, Marcela Munoz.

Alongside integrated cultural management tools, she highlighted that greenkeepers now have a range of single active fungicides and new pre-mixed combinations that can be more effectively targeted against damaging disease threats and risks.

“The aim has to be to prevent disease breaking out, especially in late autumn or early winter when slow recovery will leave damage to playing surface quality evident for months,” she warned.

Marcela Munoz advocated the value of the Contact<sup>®</sup> activity of fludioxonil - as in Medallion TL and Instrata – to target spores on the leaf and in the thatch and reduce disease pressure, along with longlasting protection on the leaf.

“But if disease has already penetrated the plant, even if it cannot be seen on the outside, you need some systemic activity to target infection in the leaf,” she advised. “That’s where the pre-mixed

Instrata has a key benefit – since it contains both actions and can provide control inside out.”

Presenting with Marcela, US turfgrass consultant, Dr Ed Nangle of the Chicago State District Golf Association, urged greenkeepers to adopt integrated measures to reduce risk of disease infection. All actions to keep the surface dry will reduce Microdochium Patch (Fusarium) incidence, including improving air flow, cutting back shade, surface drainage, switching and dew suppressants, for example.

“Anything you do to knockdown the spore infection gives greater potential for long-lasting results,” advised Ed Nangle.

“Taking out the pathogen early allows more flexibility with fungicide applications.” Ed cited the experience of the US where mixing fungicide actives now standard practice.



“Anything you do to knockdown the spore infection gives greater potential for long-lasting results”

Ed Nangle



# Environmental attraction

Naas Golf Club has developed an outstanding reputation for its exceptional playing conditions and beautiful course presentation. Furthermore, Course Manager, David Behan, has achieved it in complete balance with the area’s natural environment – creating a highly attractive package for players that has generated an extremely healthy membership and visitor income.

David has pioneered the Syngenta Operation Pollinator initiative in Ireland, to complement Naas’ stunning topography, landscaped water features and established woodland.

For the past three years he has undertaken a programme of rough management with Rescue and establishing new wildflower areas.

The result has been to enhance both the ecological diversity of the course, and to provide an attractive place to play. “We always look to integrate the

latest agronomy tools where they are appropriate to improve the quality of the golf course playing area,” said David. “With our proactive management of out of play areas to create environmental habitats we have found that is perfectly possible increase the overall ecological value of the club at the same time.”





## Winning Tips from Top Spray Man

The UK's top amenity sprayer operators have been recognised with the inaugural Amenity Sprayer Operator of the Year Awards.

Sponsored by Syngenta and ICL (formerly Everris), the winners of this prestigious Amenity Forum competition have highlighted the exceptional skills and experience of all those involved. They have demonstrated the best practices for effective results and, above all, safe spray application in amenity situations.

Dan Lightfoot, Syngenta UK Business Manager, visited the Winner of the amenity turf boom sprayer category, Andrew Kerr from West Malling Golf Club in Kent. "We recognise that the skills of the operator are paramount in achieving the best possible results," said Dan.

"All the ASOOTY entrants have instigated ideas and practices to make the spraying process easier, more accurate and, ultimately, safer.

"The Awards are a welcome way to recognise and reward the leading individuals and to learn from their experience."

Andrew is Course Manager of the two 18-hole parkland courses at West Malling. Sharing his tips and practical ideas that impressed the judges could help other operators and greenkeepers to get the best out of every application.

Amenity Forum Chairman, Professor John Moverley, added: "The ASOOTY Awards has judged all aspects of amenity spraying, to identify the UK's very best operators. It is designed to share their skills and expertise across the industry.

"It has been evident that all the entrants have consistently shown outstanding skills and work to very high standards, to achieve the best possible results. The selected finalists have proved worthy winners by demonstrating that best practice can deliver efficient, cost effective and accurate amenity spraying."

“  
The Awards are a welcome way to recognise and reward the leading individuals and to learn from their experience.”  
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Andrew has checked the water volume marks of the sprayer tank are accurate for the amount being filled. The sprayer is always parked on the same level area for filling. Best practice is to fit a flow meter on the water filling hose, to check exactly how much is going into the tank.



Andrew's sprayer is regularly serviced to keep it in good condition. Although the machine is several years old, a good operator is still perfectly capable of achieving very high levels of accuracy, providing wearing parts are replaced when necessary. Annual NSTS certification checks it is all working well.



Auto-rate controllers that adjust application rate to forward speed have helped immensely with improving spray accuracy. Checking they are functioning correctly is an important element of the maintenance and calibration regime.



Nozzle selection is a critical part of accurate application, delivering the appropriate water volume at the required speed to hit the intended target. Andrew typically uses a water volume of 200 l/ha for foliar applied products, such as Primo Maxx or Instrata fungicide, whilst soil uptake nutrients would be applied at up to 600 l/ha to penetrate through the sward.



The concrete pad filling and wash-down area at West Malling has a self-contained draining system, with any rainwater or washings from the area collected and pumped through a bio-clean system. There is no risk of spillage or residues reaching the groundwater. Gates are shut off to prevent any golfers or public entering the area during the filling process.



The filling area should also have a spill kit readily to hand in case of concentrate spillage. Sawdust is good, but even better is a bag of cat litter from a pet store which is highly absorbent and holds the liquid; it can be swept up with a dedicated dustpan and brush and put in a labelled plastic bag for disposal. A dedicated spill kit costs less than £5, but could avert a serious problem from a spill.



West Malling's chemical store has really good clearly labelled racking that keeps bottles off the floor. Stock is rotated to ensure part used product is used up and any older product used first. Syngenta products are date stamped at bottling that helps with store management.



Knowing the area you are spraying is essential in calculating tank mix requirements, and for checking the accuracy of application rates. Courses can be professionally mapped, but GPS technology such as a Garmin or an app on a mobile phone can give excellent results.

 Visit GreenCast for more of Andrew Kerr's practical tips.

 Look out for entry to next year's ASOOTY competition.

NEW GREENCAST TURF APP  
AVAILABLE JANUARY 2016

# New GreenCast Turf App



A new mobile-phone App from Syngenta will give greenkeepers and turf managers the opportunity to improve the efficiency of all spray applications, and maintain their spray records simply and effectively.

The GreenCast Turf App removes the need for any manual record keeping. By inputting the necessary information during the spray operation, it automatically compiles a comprehensive report that is simply emailed back to the office to complete their records.



**The new App, which will be available to download free, is designed for all Apple and Android smart phones or tablets.**

With significant upgrades to the existing and popular Turf Tank Calc, the fully customisable GreenCast Turf App has been extended to provide comprehensive recommendations and an entirely new recording system.

The GreenCast Turf App can be fully customised to an individuals' own golf course or facility, including details such as turf areas, sprayer details and operators etc, which can be quickly included during the tank calculation and spray recommendations process.

## Record keeping

The GreenCast Turf App contribute significantly to record keeping, producing a detailed report of what has been applied, where and how. The reports, which can be printed out or stored electronically, fully comply with the statutory code of practice.

Furthermore, good record keeping can be invaluable in evaluating what worked most effectively under specific conditions for an individual course or facility – and enable better decision making in the future.

The development is a milestone in the best practice for spray application for the turf industry and the effective stewardship of amenity pesticide use. It further reinforces the professional approach of greenkeepers and turf managers for responsible use and protection of the environment.

## Time saving

Tank-mixes and recommendations can now be created and saved for later application - optimising use of time and ensuring operators are ready to go when conditions are right. Turf managers and agronomists can create their recommendations, which can then be followed quickly and accurately by the sprayer operator.

This can also aid store management and help to ensure sufficient products has been ordered and available when required.

The easy to use auto-fill product database now includes the complete Syngenta product range, along with a detailed resource of fertiliser and turf health products from ICL (formerly Everris). The possibility exists to add any additional product into to a custom database, which will be available for instant reference with subsequent applications.

## Tank-mix guide

The new GreenCast Turf App will create spray tank calculations for faster and more efficient applications.

When the area to be sprayed is entered, the App will automatically calculate the amount of each product required and the water volume. If more than one spray tank will be required, the results will be displayed for the amount of product in each tank.

## Application advice

The GreenCast Turf App also gives operators a nozzle recommendation to optimise application for any given water volume and spray target, including the ideal Syngenta XC Nozzle.

### KEY FEATURES

- ✓ Customisable for your course
- ✓ Create tank-mix recommendations
- ✓ Compiles complete spray records
- ✓ Application advice
- ✓ Quick linked with GreenCast



## Social touch

Social media has opened up a whole new world of communication. For greenkeepers and course managers, often working in the close confines of a club environment, it brings the opportunity to talk to each other and share experiences quickly and easily.



**You have to embrace social media, or risk getting left behind - very quickly, warns Matt Nutter, Course Manager at East Berkshire Golf Club. A keen advocate of the technology outside of work, it has been a natural progression to utilise Facebook and Twitter to help communicate what he is doing on the course.**

Golfers - even the older players - are increasingly tech savvy. There are as many members in the clubhouse viewing their iPad using WiFi, as reading the paper. "Social media lets us reach them in one go, whether they be regular players at the club most days, or just occasional players who want to know what is going on," said Matt. "Using Twitter we can instantly keep them up to date with progress and results - and usually pre-empts any problems."

Matt finds that Twitter is the more effective route to let people know what is happening, but Facebook is his preferred way to share information and develop discussion - both with golfers and other greenkeepers. "However, if I see there is a question posted by a greenkeeper I know where I might be able to help, I'd rather give him a call and discuss in person. Sometimes it's still better just to talk."

### Personal contact

Matt remains clear that an on-line message cannot replace the value of personal contact. "We still have the blackboard in the clubhouse, detailing the current activities and course report. I also believe that getting the Green Committee and Club Manager out on the course is irreplaceable to explain what we want to do and how the investment will benefit the club."

Golfers always gripe at any disruption through the maintenance programme, but where he can now tweet or Facebook post pictures of before, during and after essential operations it reminds them of the effort that goes on all year round to enhance the course playing surfaces - and how they are now enjoying great conditions because of it.

Members have been fascinated to watch greenkeeping operations in practice in some of Matt's GoPro movies, which has created great respect for the team and their skills.

"Most of the social media activities are virtually instant within the working day," he reported. Communication is really part of the job, so anything that makes that easier and more effective has to be welcomed."



You can follow the latest news from Syngenta, including trials results and topical tips from other greenkeepers, on Twitter: @greencastuk

# Royal Rescue

With his characteristic spiky hair and black wrap-around sunglasses, Royal St George's Paul Larsen strikes an unconventional pose for Head Greenkeeper at one of the UK's very, very best links courses and a bastion of traditional golfing standards.



Paul Larsen has utilised new agronomy techniques to reinstate fine turf quality faster and more cost effectively.



Clearing coarse grasses and overseeding has enabled holes to be redefined and brought new features into play.

**Yet it is through Paul's radical approach of adopting innovative new techniques alongside the highest traditional links' greenkeeping skills that he is restoring the quality of all the club's turf surfaces to their finest condition, over an incredibly short transition period.**

Extreme wear and tear from the sheer pressure of golfers' high demands to play this prestigious course all year-round, along with changing climatic conditions and little respite from the easterly coastal winds, had seen the long-renowned native fescue grasses gradually dominated by coarse Ryegrass and Yorkshire Fog on greens, fairways, tees and rough.

Around five years ago, Paul started Rescue trials some small areas around the course, to evaluate if the coarse grasses could be selectively controlled and leave the fine fescue species to recover. Encouraged by the results, two years ago, he took the brave step to treat virtually all the fairways and tees in one autumn application. A second phase has seen all the greens treated, twice, and now the collars and surrounds.

"Already, as we have gone through year two of the programme, the results have been so impressive that playing conditions are so much better every day," he reported.

With so much of the coarse grasses removed with the initial applications, the second year of universal Rescue treatment across the fairways and greens has had far less of a dramatic visual impact. "Furthermore, the late summer and early autumn conditions this year has been extremely clement for over seeding, with a high level of take and excellent establishment," he added.

## Quick recovery

One of Paul's tips has been to put on a small amount of N prior to Rescue application, just to get the target coarse grasses growing well and taking up the herbicide quickly. "We are now confident that we will see the Rescue take effect and the weed grasses start to die back 14 days after treatment, so we can time applications around any specific tournaments and play," he said.

"We did find that where there was Yorkshire Fog there would generally be some existing fescue under the leaves that would fill and recover quickly," he said "But, beneath the Ryegrass plants there was nothing when it died back, so the seeding was especially important."

Paul believes the foundation is now in place for a really strong fescue dominant sward. Composition of some of the tees treated in early Rescue programmes are now 100% fescue. The fairways look immaculate and the consistency of colour is amazing. They are playing extremely well with no signs of stalking or bobbly effect of the coarse grasses. And the cutting regime on fairways is also far easier now.

Other management practices are further helping to protect and encourage the fescue plants. For the first time he has been able to rope off areas and better direct golfers movements to reduce impacts of traffic at pinch-points. Using a combination of alternating rolling and mowing on the greens is keeping the surface roll smooth and consistent at



# Lifetime Achievement

Former Derby County groundsman, Bob Smith, has received the IOG Lifetime Achievement Award, sponsored by Syngenta and ICL (formerly Everris).

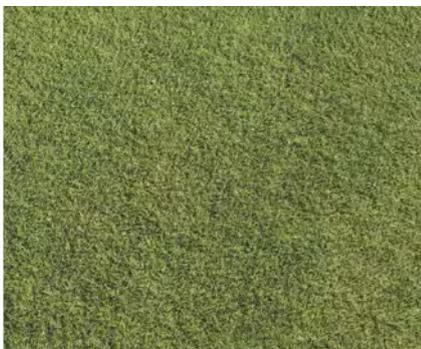


Under Bob's direction from 1967, the Baseball Ground became legendary as Derby County moved up through the leagues, and the home of notable successes in domestic and European cup football. It was in an era when winter pitches - and the football they produced - was a different spectacle in the sea of mud.

The IOG Lifetime Achievement Award was presented to Bob Smith by Caroline Carroll of Syngenta and Ed Carter of ICL (formerly Everris), joint sponsors of the IOG Award.

Subsequently, Bob was the first groundsman in the UK to have a purpose-built sand construction pitch, the precursor to most of the pitches today. He was also the first to have pop-up sprinklers, and first to use a pure Ryegrass sward. His experience in successfully pioneering these techniques put him in high demand when he left the Baseball Ground and set up his own sports turf management company.

With a career that had adopted so much innovation to improve pitch management, and willingness to share his experiences to enhance the professionalism of all groundsman, it is extremely fitting that Bob, now aged 72, should receive the IOG Lifetime Achievement Award.



Existing fescue grasses and new seeds quickly regrow through rescue treated areas. Turf composition on some tees is now 100% fescue.

a slightly raised height of cut, which is favourable to the fescue recovery. Nutrition has been cut right back, to well under 50kg N/ha on the greens, which Paul carefully manages to trickle feed for plant health, without encouraging too much growth.

## Continued improvement

He is now planning a third year of Rescue treatment across the fairways and greens and repeat treatments on collars and approaches. Each successional treatment has less visual impact, but continues the incremental improvement in quality

"Royal St George's is rightly renowned as a leading Open venue with outstanding quality," enthused Paul. "It is an ultimate attainment to be able to set up a course for the world's best golfers. But we get the greatest reward from presenting a course in that condition for our members and players every day of the year."



**Read the full story of Paul's restoration of Royal St George's on GreenCast**



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**Syngenta UK Ltd.** Registered in England No. 849037.  
CPC4, Capital Park, Fulbourn, Cambridge CB21 5XE  
**Email:** [golf.syngenta@syngenta.com](mailto:golf.syngenta@syngenta.com)  
**Web:** [www.greencast.co.uk](http://www.greencast.co.uk) / [www.greencast.ie](http://www.greencast.ie)

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**Tel:** 01473 201100 **Email:** [prof.sales@icl-group.com](mailto:prof.sales@icl-group.com)  
**Web:** [www.icl-sf.co.uk](http://www.icl-sf.co.uk)



## Bring your Best Game to **BTME**

The Syngenta stand at **BTME** in January will highlight how the skills of greenkeepers can enhance Playability Through Research. And you can experience what it can really deliver thanks to a



pioneering golf simulator, where your golfing skills can be put to the test with competitions for a Longest Drive over a Primo Maxx quality fairway, or nearest the pin on an immaculate Qualibra treated green.



**BTME**



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